

Serial No. 09/763,572

REMARKS

The foregoing amendments overcome objections to claims 14, 15 and 17-21 originally presented in an Office Action mailed November 6, 2002, but which were overlooked in the Action of May 30, 2003. No new matter is presented and, accordingly, approval and entry of the herewith amended claims 14, 15 and 17-21 are respectfully requested.

In that earlier Action of November 6, 2002, the Examiner further had questioned in relation to claim 19: "Where is the 'a light transmissive substrate' shown in the drawings?" The intent of the recitation in claim 19 was to recite the "transparent substrate 62a" at page 21, line 11 and which, incidentally, has a "mask of the light-type material 68 previously formed on the substrate 62a (see Fig. 8C)...." (Page 22, lines 1-3) Accordingly, while "light transmissive" and "transparent" are submitted to be synonyms, claim 19 has been amended to adopt this specification term "transparent" thereby affording clear antecedent support. That same change has been made in claim 15.

Since the Office Action of November 6, 2002 was superseded by that of May 30, 2003, it is understood that the issues of the earlier Action therefore were no longer outstanding—until resurrected by the telephone call from Examiner Truong on July 30, 2003. Accordingly, applicants believe that no extension of time is required for the filing of this Supplemental Amendment.

Nevertheless, if an extension of time is required, then applicants authorize that the fee for same may be deducted from Deposit Account No. 19-3935.

OFFICIAL
Serial No. 09763,572

CONCLUSION

There being no other outstanding objections or rejections, it is submitted that the application is in condition for allowance, which action is earnestly solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: August 15, 2003

By: H. J. Staas
H. J. Staas
Registration No. 22,010

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501

CERTIFICATE OF FACSIMILE TRANSMISSION
I hereby certify that this correspondence is being transmitted via facsimile to: Commissioner for Patents,
P.O. Box 1450, Alexandria, VA 22313-1450
on August 15, 2003
STAAS & HALSEY
By: [Signature]
Date: August 15, 2003

FAX RECEIVED

AUG 16 2003

TELEFAX CENTER 2800

Serial No. 09/763,572

IN THE CLAIMS:

The text of all pending claims are set forth below. Cancelled and withdrawn claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (previously amended), (cancelled), (withdrawn), (new), (previously added), (reinstated - formerly claim #), (previously reinstated), (re-presented - formerly dependent claim #) or, (previously re-presented). Please AMEND claims * and ADD new claims * in accordance with the following:

14. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space therebetween, a plurality of band-like barrier ribs arranged in parallel on one of the pair of substrates on a rear or front side to partition the discharge space, and fluorescent layers provided in elongated grooves between the barrier ribs, the plasma display panel being characterized in that wall-like projections which are lower than the barrier ribs and high enough to increase a formation area of the fluorescent layers are provided in the elongated grooves between the barrier ribs and the fluorescent layers are formed in the grooves including the wall-like projections between the barrier ribs, the method comprising:

in the formation of the wall-like projections and the barrier ribs on said one of the pair of substrates on the rear or front side of the plasma display panel,

forming a first photosensitive material layer on a further substrate;

disposing thereon a photolithographic mask having a pattern of the wall-like projections, followed by exposure;

without development, forming a second photosensitive material layer on the first photosensitive material layer;

disposing thereon a photolithographic mask having a pattern of the barrier ribs, followed by exposure and development of the first and second photosensitive material layers simultaneously, thereby producing a master having the wall-like projections and the barrier ribs formed on the further substrate; and

producing a transfer mold using the master, filling a barrier rib material in concaves of the transfer mold and transferring the barrier rib material onto the substrate said one of the pair of substrates for the plasma display panel, or producing a pressing mold using the master,

Serial No. 09/763,572

pressing a barrier rib material on the substrate said one of the pair of substrates for the plasma display panel, thereby forming the wall-like projections and the barrier ribs.

15. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space therebetween, a plurality of band-like barrier ribs arranged in parallel on one of the pair of substrates on a rear or front side to partition the discharge space, and fluorescent layers provided in elongated grooves between the barrier ribs, the plasma display panel being characterized in that wall-like projections which are lower than the barrier ribs and high enough to increase a formation area of the fluorescent layers are provided in the elongated grooves between the barrier ribs and the fluorescent layers are formed in the grooves including the wall-like projections between the barrier ribs, the method, comprising:

in the formation of the wall-like projections and the barrier ribs on said one of the pair of substrates on the rear or front side of the plasma display panel,

forming a barrier rib pattern of a light-tight material on a ~~light transmissive~~ transparent substrate;

forming thereon a first photosensitive material layer;

disposing thereon a photolithographic mask having a pattern of the wall-like projections, followed by exposure;

without development, forming a second photosensitive material layer on the first photosensitive material layer;

exposing the resulting, transparent substrate from a rear surface thereof, followed by developing, thereby producing a master having the wall-like projections and the barrier ribs formed on the transparent substrate; and

producing a transfer mold using the master, filling a barrier rib material in concaves of the transfer mold, and transferring the barrier rib material onto said one of the pair of substrates for the plasma display panel, or

producing a pressing mold using the master and pressing a barrier rib material on said one of the pair of substrates for the plasma display panel,

thereby forming the wall-like projections and the barrier ribs.

16. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space

Serial No. 09/763,572

therebetween, a plurality of band-like barrier ribs arranged in parallel on one of the pair of substrates on a rear or front side to partition the discharge space, and fluorescent layers provided in elongated grooves between the barrier ribs, the plasma display panel being characterized in that wall-like projections which are lower than the barrier ribs and high enough to increase a formation area of the fluorescent layers are provided in the elongated grooves between the barrier ribs and the fluorescent layers are formed in the grooves including over the wall-like projections between the barrier ribs, the method comprising:

in the formation of the wall-like projections and the barrier ribs on said one of the pair of substrates on the rear or front side of the plasma display panel,

forming a lattice of a sandblast-resistant material on said one of the pair of substrates; thereafter forming a barrier rib material layer of good sandblastability on said one of the pair of substrates;

forming thereon a sandblast-resistant pattern using a photolithographic technique; and sandblasting the barrier rib material layer via the pattern,

thereby forming the wall-like projections and the barrier ribs.

17. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space therebetween, a plurality of band-like barrier ribs arranged in parallel on one of the pair of substrates on a rear or front side to partition the discharge space, and fluorescent layers provided in elongated grooves between the barrier ribs, the plasma display panel being characterized in that wall-like projections which are lower than the barrier ribs and high enough to increase a formation area of the fluorescent layers are provided in the elongated grooves between the barrier ribs and the fluorescent layers are formed in the grooves including the wall-like projections between the barrier ribs, the method comprising:

in the formation of the wall-like projections and the barrier ribs on said one of the pair of substrates on the rear or front side of the plasma display panel,

forming first wall-like projections and second wall-like projections having the same height and crossing each other on said one of the pair of substrates, and

forming projections on either one of the first and second wall-like projections to the height of the barrier ribs,

thereby forming the wall-like projections and the barrier ribs.

Serial No. 09/763,572

18. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space therebetween, a plurality of band-like barrier ribs arranged in parallel on one of the pair of substrates on a rear or front side to partition the discharge space, and fluorescent layers provided in elongated grooves between the barrier ribs, the plasma display panel being characterized in that wall-like projections which are lower than the barrier ribs and high enough to increase a formation area of the fluorescent layers are provided in the elongated grooves between the barrier ribs and the fluorescent layers are formed in the grooves including the wall-like projections between the barrier ribs, the method comprising:

in the formation of the wall-like projections and the barrier ribs on said one of the pair of substrates on the rear or front side of the plasma display panel,

forming a first photosensitive barrier rib material layer on said one of the pair of substrates;

disposing thereon a photolithographic mask having a pattern of the wall-like projections, followed by exposure;

without development, forming a second photosensitive barrier rib material layer on the first photosensitive barrier rib material layer; and

disposing thereon a photolithographic mask having a pattern of the barrier ribs, followed by exposure and development,

thereby forming the wall-like projections and the barrier ribs.

19. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space therebetween, a plurality of band-like barrier ribs arranged in parallel on one of the pair of substrates on a rear or front side to partition the discharge space, and fluorescent layers provided in elongated grooves between the barrier ribs, the plasma display panel being characterized in that wall-like projections which are lower than the barrier ribs and high enough to increase a formation area of the fluorescent layers are provided in the elongated grooves between the barrier ribs and the fluorescent layers are formed in the grooves including the wall-like projections between the barrier ribs, the method comprising:

in the formation of the wall-like projections and the barrier ribs on said one of the pair of substrates on the rear or front side of the plasma display panel,

forming a pattern of the barrier ribs of a light-tight material on a light-transmissive

Serial No. 09/763,572

transparent substrate;

forming thereon a first photosensitive barrier rib material layer;

disposing thereon a photolithographic mask having a pattern of the wall-like projections, followed by exposure;

without development, forming a second photosensitive barrier rib material layer on the first photosensitive barrier rib material layer; and

performing exposure from a rear face of the transparent substrate, followed by development,

thereby forming the wall-like projections and the barrier ribs.

20. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space between, a plurality of barrier ribs in stripes arranged in parallel on either one of the pair of substrates to partition the discharge space, and wall-like projections lower than the barrier ribs provided in elongate grooves between the barrier ribs, characterized in that the projections are formed by a process comprising:

forming a projection material layer on said one of the pair of substrates;

forming thereon a masking pattern for the projections of a sandblast-resistant material;

forming thereon a barrier rib material layer;

forming thereon a masking pattern for the barrier ribs of a sandblast-resistant material;

and

forming the projections and the barrier ribs simultaneously by a single sandblasting operation.

21. (CURRENTLY AMENDED) A method of fabricating a plasma display panel provided with a pair of substrates disposed opposite each other to form a discharge space between, a plurality of barrier ribs in stripes arranged in parallel on either one of the pair of substrates to partition the discharge space, and wall-like projections lower than the barrier ribs provided in elongate grooves between the barrier ribs, characterized in that the projections are formed by a process comprising: applying a projection material through a nozzle onto boundary areas between discharge cell areas in the elongate grooves between the barrier ribs on said one of the pair of substrates on which the barrier ribs are formed.

Serial No. 09/763,572

22. (ORIGINAL) The method for fabricating a plasma display panel as set forth in claim 21, characterized in that the projection material comprises a fluorescent substance paste.